

Volume 6, No. 1 (Supplement)

June 2011

ISSN 1823-2140

*The* National University  
*with an*  
INTERNATIONAL REACH



UNIVERSITI  
KEBANGSAAN  
MALAYSIA  
*National University of Malaysia*

# MEDICINE & Health

The Official Journal of The Faculty of Medicine UKM

**7<sup>th</sup> Malaysia Indonesia Brunei  
Medical Sciences Conference**  
"TOWARDS A HOLISTIC AND INTEGRATIVE  
APPROACH IN HEALTHCARE"

22<sup>nd</sup> - 24<sup>th</sup> July 2011  
Equatorial Hotel, Bangi, Selangor,  
MALAYSIA

officiated by  
**Y.B Datuk Rosnah Haji Abdul Rashid Shirlin**  
Deputy Minister of Health Malaysia

Organised by

Universiti Kebangsaan Malaysia  
Medical Centre (UKMMC)

Faculty of Medicine  
Universitas Indonesia

Universiti Brunei  
Darussalam

## CURRENT STATUS OF DENGUE VIRUS INFECTION IN BRUNEI DARUSSALAM

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### Background:

In 2010, a total of 306 patients were diagnosed positive for dengue virus infection. The aims of this study were to generate useful epidemiological data of dengue infection in Brunei Darussalam, to link the onset of infection within age group and gender in Brunei Darussalam and to correlate dengue infection with the climatic factor.

### Material & Methods:

This retrospective study includes a total number of 172 serum samples. Each serum sample was screened using Dengue Duo Capture IgG/ IgM ELISA to identify the onset of the infection (primary or secondary) and Dengue NS1 antigen ELISA to detect dengue virus NS1 antigen. Positive cases were then compared with the total amount of rainfall and mean humidity.

### Results:

The result has shown that 121 samples (70.3%) were tested positive with either dengue specific IgM, dengue specific IgG and NS1 antigen (69 Males and 52 females). A higher proportion of primary infections were seen in male for all age groups, except for age groups of 50-59 and 60-69 years. In female, age groups of 1-9, 10-19 and 20-29 years had more primary infection as compared to the secondary infection. The difference between the number of positive cases against the amount of rainfall and average relative humidity are not significance ( $P>0.05$ ).

### Conclusion:

The proportion of male and female infected with dengue infection were almost equal with age group of 20-29 years were more susceptible to the infection. The drop in the number of positive cases between September and October was corresponding to the drop of total rainfall from September to October.

### Keywords:

dengue virus, serotyping, dengue IgM/IgG, NS1 antigen, Brunei Darussalam.